

What is claimed is:

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1. A gaming machine comprising:
  - 1 a master gaming controller that controls a game played on
  - 5 the gaming machine and communicates with one or more game service servers wherein each game service server provides at least one game service;
  - 10 a communication multiplexer device connected to the master gaming controller, the communication multiplexer device comprising
    - 10 (i) one or more communication ports wherein each communication port transmits and receives messages with the master gaming controller using a native communication protocol,
    - 15 (ii) an output communication port that transmits and receives messages with the one or more game service servers using a second communication protocol, and
    - 20 (iii) processor logic that multiplexes and demultiplexes messages between the one or more communication ports and the output communication port and that converts between the native communication protocol and the second communication protocol; and
    - 25 a network interface connected to the output communication port that receives and transmits messages using the second communication protocol.

2. The gaming machine of claim 1, wherein the game service is selected from group consisting of progressive game services, bonus game services, player tracking services, cashless ticketing services, game

downloading services, prize services, entertainment content services, concierge services, lottery services and money transfer services.

3. The gaming machine of claim 1, wherein the network

5 interface is a wireless radio connection.

4. The gaming machine of claim 1, wherein the network

interface is a wired Ethernet connection.

10 5. The gaming machine of claim 3, further comprising:

an antenna for transmitting and receiving communications  
over the wireless radio connection.

15 6. The gaming machine of claim 1, wherein the native  
communication protocol is selected from the group consisting of a  
progressive game service protocol, a bonus game service protocol, a  
player tracking service protocol, a cashless ticketing service protocol, a  
game downloading service protocol, a prize service protocol, an  
entertainment content service protocol, a concierge service protocol, a  
lottery service protocol and a money transfer service protocol.

20 7. The gaming machine of claim 1, wherein the one or more

Sub A 7 communication ports comprises a first communication port using a first  
native communication protocol a second communication port using a  
second native communication protocol.

25 8. The gaming machine of claim 1, wherein the one or more

communication ports comprises a first communication port that receives  
and sends messages from a first game service server and a second  
communication port that receives and send messages from a second  
game service server.

9. The gaming machine of claim 1, wherein communication between the gaming machine and the one or more game servers is encrypted.

5 *Sub P8* 10. The gaming machine of claim 1, wherein the processor logic configures each of the one or more communication ports to emulate a native communication protocol.

10 11. The gaming machine of claim 10, wherein the communication multiplexer communication device communicates with a boot server to determine the native communication protocol to be used on each of the one or more communication ports.

15 12. The gaming machine of claim 1, wherein the one or more game service servers are selected from the group consisting of a prize server, a game server, an entertainment content server, a cashless ticketing server, progressive game server, a bonus game server, a concierge service server, a lottery server and a money transfer server.

20 13. The gaming machine of claim 1, wherein the game played on the gaming machine is at least one of a video slot game, a mechanical slot game, a lottery game, a video poker game, a video black jack game, and a video pachinko game.

14. The gaming machine of claim 1, wherein the second communication protocol is a TCP/IP communication protocol.

25 15. The gaming machine of claim 1, wherein the gaming machine employs regulated gaming software that provides messages in the native communication protocol and wherein the regulated gaming

software is not modified to accept messages transmitted in the second communication protocol.

*S<sup>8</sup>A<sup>9</sup>* 16. The gaming machine of claim 1, wherein a physical interface of the one or more communication ports is selected from the group consisting of RS-422/485, Fiber Optic, RS-232, DCS Current Loop, Link Progressive Current Loop, FireWire, Ethernet and USB.

17. A multiplexer communication device for multiplexing communications between a gaming machine and one or more game service servers, the multiplexer communication device comprising:

10 one or more communication ports wherein each communication port transmits and receives messages between the gaming machine and the multiplexer communication device in a native communication protocol;

15 a multi-port communication board allowing each communication port to be configured to accept multiple native communication protocols;

20 an output communication port that transmits messages addressed to one or more game servers and receives messages from one or more game service servers addressed to one more communication ports using a second communication protocol; and

processor logic that multiplexes and demultiplexes messages between the one or more communication ports and the output communication port and that converts between the native communication protocol and the second communication protocol.

25 18. The communication multiplexer device of claim 17, wherein the gaming machine employs regulated gaming software that provides

messages in the native communication protocol to the one or more communication ports and wherein the regulated gaming software is not modified to accept messages transmitted in the second communication protocol.

5        19. The communication multiplexer device of claim 17, further comprising:

an EEPROM that provides configuration information to the processor board.

10      20. The communication multiplexer device of claim 17, further comprising:

a firewall connected to the output communication port.

15      21. The communication multiplexer device of claim 17, further comprising:

a power supply.

20      22. The communication multiplexer device of claim 17, further comprising:

a network interface board.

25      23. The communication mutliplexer device of claim 22, wherein the network interface board provides a wireless radio network interface.

24. The of claim 22, wherein the network interface board provides a Ethernet network interface.

25. The communication mutliplexer device of claim 17, wherein the second communication protocol is a TCP/IP communication protocol.

26. The communication mutliplexer device of claim 17, wherein the native communication protocol is selected from the group consisting of a progressive game service protocol, a bonus game service protocol, a player tracking service protocol, a cashless ticketing service protocol, a game downloading service protocol, a prize service protocol, an entertainment content service protocol, a concierge service protocol, a lottery service protocol and a money transfer service protocol.

*Sub A<sup>16</sup>* 27. The communication multiplexer device of claim 17, wherein a physical interface of the one or more communication ports is selected from the group consisting of RS-422/485, Fiber Optic, RS-232, DCS Current Loop, Link Progressive Current Loop, FireWire, Ethernet and USB.

28. The communication mutliplexer device of claim 17, further comprising:

15 an antenna connected to the output communication port.

*Sub A<sup>17</sup>* 29. The communication mutliplexer device of claim 17, wherein the one or more communication ports comprise 8 communication ports.

30. The communication mutliplexer device of claim 17, wherein the one or more communication ports comprise 16 communication ports.

20 31. A method of providing communications between a gaming machine and one or more game service servers in a communication multiplexer device connected to the gaming machine, the method comprising:

25 establishing communications with a boot server located outside of the communications multiplexer device;

initializing one or more communication ports;

mapping each communication port to a port game service server;

configuring each communication port to accept a native communication protocol used by the port game service server and the  
5 gaming machine;

establishing a communication connection between each communication port and the port game service server using a second communication protocol; and

for each communication port,

10 transmitting a message from the port game service server to the gaming machine through the communication port.

32. The method of claim 31, wherein the gaming machine employs regulated gaming software that provides messages in the native communication protocol to the one or more communication ports and wherein the regulated gaming software is not modified to accept  
15 messages transmitted in the second communication protocol.

33. The method of claim 31, wherein the communication multiplexer device is assigned an IP address by the boot server.

*S. 4 A 12* 34. The method of claim 31, further comprising:

20 converting messages from the gaming machine in the native communication protocol received at one of the communication ports to the second communication protocol; and

transmitting the messages in the second communication protocol to the port game service server.

35. The method of claim 31, further comprising:

converting messages from the port game server addressed to one of the communication ports in the second communication protocol to the native communication protocol of the communication port; and

5 transmitting the messages in the native communication protocol to the communication port.

36. The method of claim 31, further comprising:

receiving a message from the port game service server wherein the message contains a communication port address; and

10 routing the message from the game service server to the communication port indicated by the communication port address.

*Sub A13* 37. The method of claim 31, further comprising:

receiving a message from the gaming machine at one of the communication ports;

15 determining an address of the game service server corresponding to the one communication port; and

routing the message from the gaming machine to the address of the game service server.

38. The method of claim 31, wherein the native communication protocol is selected from the group consisting of RS-422/485, Fiber Optic, RS-232, DCS Current Loop, Link Progressive Current Loop, FireWire, Ethernet and USB.

39. The method of claim 31, wherein the second communication protocol is a TCP/IP communication protocol.

40. The method of claim 31, wherein the one or more game service servers are selected from the group consisting of a prize server, a game server, an entertainment content server, a cashless ticketing server, progressive game server, a bonus game server, a concierge service server, a lottery server and a money transfer server.